Received: 29 April 2020 | Revised: 26 May 2020 | Accepted: 31 May 2020

DOI: 10.1111/phc3.12691

ARTICLE

WILEY

The ontology of words: Realism, nominalism, and eliminativism

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Abstract

What are words? What makes two token words tokens of the same word-type? Are words abstract entities, or are they (merely) collections of tokens? The ontology of words tries to provide answers to these, and related questions. This article provides an overview of some of the most prominent views proposed in the literature, with a particular focus on the debate between type-realist, nominalist, and eliminativist ontologies of words.

Consider the word "omnishambles." Famously used by Malcolm Tucker on the political satire "The Thick of It," the word means (from the OED): "A situation that has been comprehensively mismanaged, characterized by a string of blunders and miscalculations." The writers of the show came up with this word. They wrote it down, an actor spoke it, and the word has passed into common usage. But, a curious ontologist might ask what kind of entity did the authors bring into existence through their activity (or even if they did at all)? That is, what is a word?

The literature on the ontology of words has mainly focused on words as kinds or types—as things that can have instances or tokens. I will follow that trend here, outlining what the competing views take such kinds to be, and how these ontologies subsequently affect the answers to two interrelated questions that have dominated much of the literature. First, how should we individuate word kinds (or types), and, second, when is it the case that two token (or particular) words are instances of the same word-kind or type (A note on terminology. I will use "kind" and "type" interchangeably here.)

1 | CRITERIA FOR AN ONTOLOGY OF WORDS

We have a general practice of discussing and conceiving of words as entities in the world, and those words having certain characteristics or properties. Words have spellings, meanings, pronunciations, etc. Words play various roles

in our lives. Some insult, some inspire, and words are central to communication. The aim of an ontology of words is to determine what entities, if any, can play those roles and possess (or instantiate) these properties. To do this, especially for those new to the debate, it would be useful to have some criteria in mind when assessing an ontology. Here are some initial proposals, drawn from (what I think are) common intuitions about words, with two caveats.

First, I have tried to phrase the criteria in a relatively neutral way. However, complete neutrality is likely impossible, and supporters of some ontologies may endorse a variation of some or all of the criteria rather than accept them as stated here. Others may reject some or all of the criteria entirely. This is fine as I do not intend them to be sacrosanct, but rather as a place to begin the discussion. It is also the case that other considerations such as theoretical virtues may also be important to theory choice. I therefore leave it open that parsimony, simplicity, elegance, or any other theoretical virtue might push us away from any criterion stated here.

Second, some of these criteria could applied to token words and word-types. I take it that, ideally, we would have an ontology that accounts for the nature of both token words *and* word-types, and this may influence how we interpret any of the criteria.

The first criterion is that of *creation*.

> Creation: whatever words are, they should be entities that account for the phenomena of "invention" or "coining."

Words are created by people, perhaps for certain purposes, and within certain historical contexts. Creation speaks to the intuition that words exist only through the action of an agent. Raindrops forming patterns on my window, ants moving through spilt sugar, swamp words, waves forming patterns in the sand, and other bizarre natural phenomena are intuitively not instances of a word, and hence not sufficient to create a word (either qua token word or word-kind).[1]

Second, *expressibility*:

> Expressibility: whatever words are, they should be expressible through some means of externalization (speaking, writing, signing etc.)

Words are in some important sense social entities that are shareable through various forms of externalization. This makes word-kinds, at least to some degree, social kinds.[2] Importantly, expressibility is neutral as to how words are expressed. The most common form of expression (or externalization) of words in humans is through spoken language, but it is also done through writing, signing, and potentially other forms of linguistic communication.[3]

As stated, this is a requirement only that words could be expressed, not that they are. But, we might debate the scope of "could." Some (e.g., Hawthorne & Lepore, 2011) hold that derivational morphology suggests that there are words that are composed of so many suffixes that those words would not be expressible, at least by humans with finite lifespans.[4] Whether such words exist is an example of the debate about uninstantiated words that will come up again later this paper. However, while the full details of expressibility are up for debate, the commonly accepted idea is that even if *some* words are not expressible, it must be the case that words can (in one sense of can) be expressed as it seems that some clearly are.

Third, *evolution* (or perhaps, *change*):

> Evolution: whatever words are they should account for the apparent change of words (e.g., being spread, forgotten, changing meaning, spelling, or pronunciation).

Words are not static. They change their meanings, or at least *can* change their meanings, spellings, and pronunciations. As will be discussed below, it is difficult to find a property that some token of a particular word-type has that is also had by all other tokens of that word-type. Words are also lost. Intuitively, words from certain extinct languages that have no written record no longer exist.

This is to say nothing about how much change a word can undergo while remaining the same word. Different ontologies will be able to accommodate differing amounts of change, just as different accounts of the metaphysics of ordinary objects can accommodate differing amounts of change in medium-sized dry goods.

One last consideration is the relationship between the ontology of words and linguistics. Though it has been argued otherwise (e.g., Balletta, 2019), I will assume here that the aim of our ontology of words is to provide a conception of "word" that satisfies all of the scientific, philosophical, and everyday demands on it. That is, a conception that can provide answers to philosophical (and in this context primarily metaphysical) puzzles, whilst being (minimally) coherent with the empirical evidence, and maintaining as far as possible our ordinary way of talking about words. Perhaps this is not possible, with each of these ways of talking about words requiring its own specific notion of "word," suggesting some form of ontological pluralism about words. However, the ontology of words typically proceeds with a unified single notion of "word" as the aim, with each theory attempting to provide the best balance between philosophical rigor and alignment with the empirical data. It remains debated, naturally, as to how well the ontologies achieve this aim.[5]

2 | TYPE-REALIST VIEWS

There are many different ways we could classify views about the ontology of words. Here, I will do so through the lens of (probably) the most discussed distinction, between "realist" and "nominalist" ontologies. In brief, the distinction is between views that posit the existence of "kind" or "type" level entities, and those that deny the existence of such entities. For each theory, the two interconnected questions I raised at the beginning of this paper will arise, and how satisfying an answer the theory provides to these questions will greatly influence how plausible the ontology. As we will also see, though, there is much disagreement amongst adherents of views within these broad categories.

2.1 | Platonism

Platonism, broadly understood, holds that words are abstract eternal types, which have instances—standardly, either physical instances (e.g., written or spoken tokens) or mental instances.[6] Thus, following the convention to use lower case for particular entities, and capitals for type-level entities, a particular word, "table," is an instance of the abstract word-type, "TABLE." These types are genuinely existing entities, distinct from their instances, and (typically) Platonists posit a relation of instantiation as holding between word tokens and these abstract word-types (Wetzel, 2009).

Naturally, there are Platonic type-realist views that vary from this attempt to characterize the view, and in particular reject this "instantiation model" of the type-token relation. Katz's Platonism, for example, holds that tokens are composite objects, composed of the abstract type and the some physical or psychological particular. Katz argues that it is a "tokening" relation, rather than instantiation (2000: chapter 5) that holds between the types and tokens.

Platonists (and many non-Platonic realists; see Section 2.2) are more united in arguing that we need to posit types in order to understand the truth of various ordinary and scientific claims about words. For example, when I say that "'Paris' contains 5 letters", this is not standardly read as being a claim about some particular word, but the word-type "PARIS". Granting that the claim is true, it is a true claim about some type-level entity, not just some particular instance(s).[7] Hence, word-types must exist. Indeed, some Platonists (notably Katz, 1981, 2000; Postal, 2003, 2009; see also fn. 16) go further to argue that this evidence supports the view that the proper subject matter of linguistics must be abstract entities.

A major benefit of Platonism is that it provides a simple answer to the question of when it is the case that two particular words are tokens of the same word: "color" and "colour" are tokens of the same word because they are both instances of the same abstract type. As with Platonic views in other domains, the view allows that tokens of the same type need not share the same properties. This ensures that despite the difference in

spelling (and, in other cases, differences in pronunciation and meaning), "color" and "colour" are tokens of the same abstract type.

However, while Platonism allows for our intuition that there can be differences between tokens of the same type, what ensures that tokens are tokens of some type? What are the necessary and sufficient conditions on some token being a token of a type? The problem for the Platonist is that it may be that no good answer is forthcoming.

Platonists are quick to reject spelling and pronunciation as providing the identity conditions of words. This is because of the need to accommodate variation of tokens of a type, as shown by countless examples of alternative spellings and pronunciation of intuitively the same word. Semantic properties also cannot seem to provide a criterion of word identity. There are many cases where (at least intuitively) instances of the same word have distinct semantic properties, beyond changes arising from the circumstances of use, or where words have significantly changed their meaning over time, and yet are ordinarily thought to be the same word. For these and other reasons, there has been no major defense of a form of Platonism that appeals to phonetic, orthographic, or semantic properties in order to say when two tokens are tokens of the same type.

This difficulty in finding some shared property had by all tokens of a type have led some to appeal to intentions as necessary for the tokening of some type (e.g., Katz, 2000:153; cf. Kaplan, 1990, 2011 and discussion in Section 2.2). Others argue that there is no property that all tokens of the same type share except that of being tokens of the same type (Wetzel, 2002; 2009:106–7). If this later view is correct, then tokens are tokens of a type if they stand in the appropriate instantiation relation to the type, with no resemblance requirement either between tokens or between the token and the type. Somewhat relatedly, Hawthorne and Lepore argue for what they call an "abstracta-articulations" model. On their view, though words are abstract entities, the model "breaks with the standard type-token model's picture of the relevant abstracta as pattern-like" (2011:38). On how to provide a criterion of identity for words, they are not sure that a positive answer can be given, suggesting instead that we should be "sloppy realists" wherein "there either are facts we may never know or simply no facts at all about the myriad borderline cases left unresolved by our capacity to settle questions in the area" (2011:36).

How persuasive sloppy realism or the appeal to the instantiation relation are, I think, depends on our antecedent commitment to a realism about word-types. Those with more nominalist tendencies will likely not find an appeal to the property of "being a token of the same type" convincing. To many nominalists this claim looks brute, possibly even ad hoc, and providing little scope for us to discover when it is the case that tokens are of the same type given that instantiation relations cannot be studied empirically. If types are posited to explain the sameness of words, then positing a "being a token of the same type" property looks like it is simply positing into existence a primitive that solves the initial problem (see Miller 2019c).

Moving on to other issues, Platonism about words faces versions of various familiar problems raised against other forms of Platonism. For example, granting the standard assumptions that abstract types are noncausal, the Platonist about words needs to be able to explain how it is that we can come to know words qua abstract eternal types.[8] However, rather than rehearse familiar debates here, I will focus on some problems that are more specific to the debate about words.

One strong intuition that we have is that words are created entities—that we can and do "coin" new words, and that Shakespeare invented a "multitude" of "new-fangled" "auspicious" words. The problem for a Platonic account is that if words are abstract, eternal Platonic types, then how can we account for the sense that we create words? Indeed, many Platonists instead hold that we *discover* words (Katz, 2000:134; 168; see also the discussion in Begley, 2019). This strikes many as deeply counter-intuitive, and goes against our normal way of speaking about words as created.

Relatedly, we might object that taking words to be eternal entities suggests that there exist untokened word-types. That is, that words that have yet to be tokened already exist, and are waiting in some abstract realm to be first instanced. This, as well as being counter-intuitive, could have further consequences for the view that words are social entities created by, and for the use of, communities of speakers.

The typical response is to refine creation to distinguish between the creation of new tokens and the discovery of some eternal type. New tokens are created, and so are the ways of expressing abstract word types, and it is this that we mean when we say that Shakespeare created new words. He created new ways to express already existing eternal types, which prior to that point may have been untokened. Hawthorne and Lepore (2011) also argue that the findings of derivational morphology makes untokened abstract types less implausible than they initially seem, and in fact required in order to fully account for ordinary speakers to be able to understand new tokens that a speaker has not previously encountered.

This shift to tokens also typically explains word change in these kinds of realist accounts. As words are abstract eternal types, the words themselves cannot change. Instead, what changes are the ways in which words are expressed, and the relations that hold between particular sounds or ink patterns, and word-types. This means that for the Platonist, words evolve in the sense that the same sound may, over time, come to stand in an instantiation relation with a different word-type than previously.

2.2 | Non-Platonic realist views

Platonism is committed to words as eternal, unchanging, abstract entities. It is possible, though, to be a type-realist, but reject Platonism, with such views most often motivated by a desire to include words within a (more) naturalistic account and, borrowing a phrase from Kaplan, hold that words "live in the world, not in Plato's heaven" (1990:111).

One way to hold an alternative type-realist view is to keep parts of the Platonic picture intact, but deny certain problematic specifically *Platonic* features of word-types. That is, to hold that there are genuinely existing abstract word-types, but deny that such types have one (or more) of the features that cause problems for the Platonist.

We have seen one example of such a twist on Platonism already in Hawthorne and Lepore's abstracta-articulations model. Another comes from Szabò (1999) who argues against positing an instantiation relation between types and token, suggesting instead a "representation" relation. Importantly, Szabó does this, in part, to avoid a Platonic conception of types as eternal and unchanging, but to maintain a realism about types that can account for the historical nature of types. Under his view, token words are "type-representations" arising from "our tendency to apply terms referring to abstract entities to their standard representations too" (1999:160). Thus, a type is represented by its tokens, allowing us to explain how empirical information about a token can inform us about the nature of the type. Szabó argues that this is not possible under the instantiation model as it relies on inductive generalizations to move from knowledge of the token to knowledge of the type.

Yet another can be found in Irmak (2019). Irmak posits words as genuinely existing abstract entities—hence he is in my terms a realist—but they are *created* abstract entities. If correct, this would allow us to resist the problems I raised above for Platonism concerning the claim that we "discover" words, and the concern about already existing uninstantiated words.[9]

A very different type-realist ontology comes from Kaplan. Kaplan (1990, 2011) begins by noting the same variation that I have touched upon above: that instances of the same word can vary in spelling and pronunciation, and argues that this is sufficient reason to reject the view that words have "some fixed and perfect Platonic form" (1990:100).[10] Instead, Kaplan proposes that utterances and inscriptions are "stages" of words, with words themselves being "the continuants made up of these interpersonal stages along with some more mysterious intrapersonal stages" (Kaplan, 1990:98). Particular utterances or inscriptions are instances of the same word if they are nodes on "a single, continuous tree of utterances, inscriptions, and quiescent storage" (2011:510). Though Kaplan resists the analogy (2011:508), this has reminded many of four-dimensionalist views in the metaphysics of persistence.

The main strength of this view is that it accounts for how words change and evolve over time. This is because what makes a token a token of a certain type is not that it resembles that type. Instead, Kaplan suggests that words are more like families. Like families, word-types (or, more precisely, continuants) may happen to resemble in certain ways, but they need not. The stages (or tokens) of a continuant (or word-type) may vary hugely whilst still being

tokens of the same type, including varying over time as spelling, pronunciation, and meanings associated with words shift and change. Rejecting any appeal to resemblance, what connects tokens of a type are relations that are "historical in nature and not apparent to perception" (2011:509). That is, it is the shared historical connection to other tokens of that type (to stages of that continuant) that makes two tokens of the same type.[11]

The appeal to historical relations additionally ensures that this ontology can maintain that words are created entities. Two utterances or inscriptions are of the same word in that they "descend from a common ancestor" (2011:509). This means that there had to have been that common ancestor—a first token or stage—for later tokens to have descended from. Given that that common ancestor will itself be an utterance or inscription, this makes word-types created entities and rules out the existence of noninstantiated words.[12]

However, Kaplan also argues that the historical connection is itself not sufficient to token a word. Invoking the notion of "repetition", Kaplan argues that "a sincere subject, intending to repeat a word that has been uttered by an examiner, will, indeed, utter that word" (2011:518). This is important for Kaplan's account as without it, given that tokens of the same type need not resemble at all, it would be open that any token could, without the knowledge of the speaker, turn out to be a token of any type. Repetition and intention together explain the continuity between speakers and within communities, as speakers are able to say the same word by intending to repeat words that others have spoken—by intending to utter a new stage that bears the correct historical relations to other stages of that continuant.

This means that so long as certain minimal capabilities are present (i.e., that the person is able to speak and is not simply producing grunts or other mere noises; see Kaplan, 2011:519), if a speaker intends to express a word, then they will succeed in expressing a token of that word, irrespective of how much it resembles other tokens of that word, thereby making the historical connection between tokens significantly intentional.

This reliance on intentions has been a source of many objections to the view. Cappelen (1999), for example, has argued that intentions cannot be part of the individuation of words, arguing that the intention to utter a token of a word is neither sufficient nor necessary for being a word token. This is because, under intentionalist views like Kaplan's, for a listener to know if something is a token of a word, they would need to know the intentions of the utterer of that word, something that we are often not in the position to do (1999:97). Thus, according to Cappelen, the knowledge of certain nonintentional (but still conventional) semantic facts is a necessary condition for communication as we observe it.[13]

It is important to stress that a stage-continuant ontologist need not accept intentionalism, but there are other objections arise more directly from the proposed ontology that would remain. For example, Kaplan holds that continuants are made up of, or composed by, stages. This seems to imply that if any stages that compose a word were different, then the word would also be different in virtue of being composed of different stages. Hawthorne and Lepore (2011: 7-8) have argued that this makes stages necessary, contra our intuition that any token might have been uttered differently, or even not at all. A possible response might lean on counterfactualist responses to similar objections raised against four-dimensionalism elsewhere in metaphysics, but this has yet to be fully developed in this literature.

3 | NOMINALISM

Nominalists about words hold that "no explanatory work will be done by picking out some one abstract entity as the sign type. That's to say, it might be that reifying sign types would be explanatorily superfluous" (Cappelen, 1999:100). Type-*talk* need not be rejected, but what these views have in common is the rejection of *ontologically committing* type-talk. Mention of types is *mere* talk, and is only a way of talking about sets, collections, or classes of suitably resembling tokens. Thus, these views only countenance the existence of tokens, rejecting the existence of types. The tokens "table" and "table" are thus distinct, and are the "same word" only in the sense that they

are members of the same set, collection, or class of tokens. In the rest of this section, my use of the term "type" should thus be read in a suitably nominalistic fashion.

The ontological parsimony achieved by positing only tokens is often a main motivation for accepting nominalism. Naturally, though, parsimony is only a virtue if the ontology is (at least) equally as explanatory as less parsimonious ontologies, and hence much of the focus of nominalist accounts has been to show how genuinely existing types are not needed, or even that a lack of types better accounts for the phenomena we observe. For example, by restricting our ontology to only word-tokens, the nominalist may avoid problems concerning the created status of words and uninstantiated words. If word-types are merely collections of tokens then those collections do not exist without members, and come into existence only when the tokens that compose the collection do.

The nominalist, though, still faces one of the central questions from above: what makes tokens tokens of the same type? Or, in the nominalist's terms, what makes two tokens members of the same (nominalistic) set, collection, or class? The nominalist still needs an answer to this question, despite their insistence that type-talk is not ontologically committing, if only due to the need to be able to adequately explain all of the ways that we typically talk about words that do seem to invoke types.

Older forms of nominalism attempted to respond to this question by appealing only to the "shape" or "form" of token words. That is, at least as it is often portrayed in the literature, nominalism about words is the view that the only relevant property of tokens to assess whether tokens are members of the same type are the spelling or pronunciation properties of those tokens. This means that we can only say that tokens are the tokens of the same type if the tokens are (exactly) resembling in their spelling or pronunciation. Accordingly, this has become known as shape- (or form-) theoretic nominalism.

Shape-theoretic nominalism has normally been attributed to Quine and Goodman as part of their broader nominalism applied to linguistic entities,[14] and Bloomfield (1933). A full account of the reasons behind the restriction to "shape" properties for each of these authors would require a longer historical analysis than can be provided here, but one reason is an independent commitment to (or at least sympathy towards) (reductive) physicalism and behaviorism. For example, Bloomfield held that language was nothing more than sounds and ink patterns, and that "meanings" were reducible to complex behavioral analysis. He writes that:

> "Non-linguists (unless they happen to be physicalists) constantly forget that a speaker is making noise, and credit him, instead, with the possession of impalpable 'ideas'. It remains for linguists to show, in detail, that the speaker has no 'ideas', and that the noise is sufficient" (Bloomfield 1936: 93)

Given these further commitments, we can see why only spelling and pronunciation are acceptable to a shape-theoretic account. The "noise is sufficient" because there simply are no other properties, or those other properties are themselves reducible to "physical" properties (spelling and pronunciation) or the causal effects of those properties cashed out as a pattern of behaviors.

Shape-theoretic nominalism faces a number immediate and well-known counterexamples. By restricting membership of a type to tokens that are exactly resembling in spelling or pronunciation, the view would seem to predict that the tokens "color" and "colour" are tokens of different types, not just different spellings of the same type. Analogously, the view prima facie struggles to account for different accents. The shape-theoretic nominalist seems to be committed to the absurd claim that two speakers, one from Liverpool and the other from Newcastle, utter tokens that are not members of the same class due to the fact that they have very different accents.

Wetzel has taken this line of argument even further, suggesting that shape-theoretic nominalism also cannot accommodate the common phenomena such as that of misspelling. If I were to write "Pareiss" then we would intuitively think I have misspelt "Paris." But Wetzel argues that the shape-theoretic nominalist cannot say this as there is no sense in which the tokens "Paris" and "Pareiss" are members of the same type (Wetzel, 2000). As the tokens have different spellings (ignoring any phonetic properties for now), they simply are not members of the same type. Many take these consequences as enough to show that shape-theoretic nominalism is false.

There are, though, nominalist ontologies that reject this restriction to *only* spelling and pronunciation properties as a guide to type-membership. These nominalists hold that there can be also types whose membership is determined by the resemblance of members (i.e., the tokens) with respect to other properties, including, but not limited to, semantic, grammatical, and intentional properties possessed by the tokens.

For example, modelled after bundle theories of objects, Miller (2019c) has argued that words are nothing more than bundles of certain (linguistic) properties. Under this ontology, tokens are bundles of properties, and types are collections of tokens, determined by the resemblance of properties that partly compose those token words qua members of that type. This allows Miller to hold that there are types whose members resemble with respect to any properties that we might take token words to possess, avoiding the limits within shape-theoretic nominalism, and thereby accommodating a wide range of intuitions we have about the sameness of words.

Indeed, by positing only resemblance relations between tokens, and not type-identity relations, the nominalist can also accommodate cases of nonexact resemblance by holding that some types may even be such that the members of the type nonexactly resemble in virtue of one (or more) of the properties possessed by those tokens. This, Miller argues, is able to explain our frequent talk about word-types where the tokens of that type are *relevantly* similar, where relevance reflects the various aims and purposes to which we put type-talk in our ordinary and scientific language.

Another, still nominalist approach has been to appeal to what Bromberger calls "archetypes" or "models" (Bromberger, 1989; Bromberger, 2011). Like other nominalists, Bromberger argues for a view of words that is intended to be able to maintain type-talk, without positing the existence of abstract entities. However, whilst the nominalism sketched above holds that types are collections of tokens, for Bromberger, tokens are members of quasi-natural kinds, and types are archetypes (or models) of those kinds. Types are models which are "object[s] so designed that, by finding the answers to some questions about it, a competent user can figure out the answer to questions about something else" (Bromberger, 1989, 62). Thus, to talk of the word "table" is not to talk about some genuinely existing abstract type, but instead to talk of a model that can be used to understand various tokens that resemble that model.

Bromberger, like other nominalists, argues that this modelling is reflective of our interests rather than being some metaphysical absolute: "no pair of objects stands (or fails to stand) in the model/modelled relation absolutely, but only relative to specific sets of questions, pairings of questions, and algorithms" (Bromberger, 1989, 63). This, Bromberger states means that "speaker-writer mind-brains endowed with grammars and lexicons leave no need for abstracta" (2011:496), in line with the nominalist denial of such entities.

A major weakness, or for some people a major benefit, of nominalism, in all its forms, is that it allows for a greater number of collections or models, with no collection or model ontologically more significant than another. Put another way, nominalism makes word-types more conventionalist than many ordinary speakers typically assume. This results in there being far more collections than those we typically recognize and accept, and those we do accept being only significant in that they are the most important for our contingent communicative or explanatory aims.

It also means that whether tokens are tokens of the same type becomes a relative matter, not absolute. The answer to questions about the "sameness" of tokens will depend on which collection of tokens we are interested in. To see this, consider again two tokens, "color" and "colour". Typically, we think of these as tokens of the same type. Under nominalist ontologies, whether the tokens are of the same type will depend on which collection of tokens we are considering, or which model. Using Miller's ontology to illustrate, if the relevant type is one whose members possess (exactly) resembling semantic properties, then the tokens will be tokens of the same type. But, if the relevant type is one whose members possess (exactly) resembling orthographic properties (i.e., spelling), then they are not the "same" word. "color" and "colour" would then be tokens of different types.

It is important, though, that whilst being more conventionalist, the nominalist need not accept that "anything goes" when it comes to types. Some types will still be more gerrymandered than others, tracking unimportant (or even nonreal) distinctions amongst tokens and their properties. Nominalists can accept that our empirical research into words aims to find those types that track genuine, objective similarities and differences amongst

tokens, or those that are most pertinent to our explanatory aims. How objectionable this all is will likely come down to how firmly we want to retain the sorts of strong intuitions that initially motivated Platonic accounts against the idea that tokens are tokens of the same type "merely" in virtue of resembling each other.

4 | ELIMINATIVISM

The debate between the realist and the nominalist focuses significantly on the ontological status of word-types. The views disagree about whether word-types exist, but agree on the existence of word tokens. The last view I will outline is one strictly only about *token* words, and is the view that token words, and indeed all "standard linguistic entities," do not exist as *concrete* entities. Words as we typically think of them qua ink patterns or sound waves are only an illusion, or are "intentional inexistents." This is therefore an eliminativism about words.[15]

Here is an argument for the view. First, words cannot exist in space–time; they cannot be physical entities. The reason for this is that when we look closely at ink patterns and sound waves, we simply do not find objects instantiating the properties that are essential to words. In particular, we do not see the complex syntactic properties that words are taken to have by our best linguistic theories. In fact, when we look at acoustic strings, we do not even see any breaks between what we perceive to be distinct words. The subject matter of linguistics, which intuitively would include words, cannot be "physical" entities as the physical entities in the world, including words, do not have the sorts of properties of features that linguists investigate.[16]

What then is happening when we speak if we are not producing token words? The proposed answer is that words are "intentional inexistents"—they are "'things' that we represent and think of as 'out there', but which do not exist" (Rey, 2008:177). Rey calls this the "folieist" view, "according to which it is a kind of 'folie à deux' in which speakers and hearers enjoy a stable and innocuous illusion of producing and hearing standard linguistic entities" (2008:177).

This means that words are like perceptual illusions. In perceptual illusions we seem to see certain figures or shapes, but there is nothing more than that illusion. Similarly, when we seem to be uttering a word, we simply do not produce anything with the same structure or properties that words are typically taken to have. Speakers do make sounds, but those sounds are not words. Rather there is a shared illusion of the existence of words, such that the speaker and hearer can both infer certain intentional contents from those illusions, and this recognition of intentional content is all that there is to communication.

The major argument for this view is that positing words (and other linguistics entities) as being anything more than an illusion is simply not theoretically useful. That "all that need be true for the noises a speaker makes to have their intended effect is that they be perceived to have the tree structure that the speaker intended; and [...] something can be perceived to have a structure without it actually possessing that structure" (2006:554). Taking such entities to be "real" is not needed to explain the behavior of such entities within linguistic theory. Instead, the sound waves cause us to enter into perceptual states that are stable across time and people such that we can happily proceed as if words were real.

Objections to this view often focus on these claims that the view cannot accommodate some aspect of communication. For example, Barber (2006) argues that eliminativism about words cannot explain that communication involves (at least sometimes) the transfer of knowledge. This is because it conflicts with a principle that Barber argues underlies knowledge through testimony: the "no-false-lemmas principle" that holds that "belief is knowledge only if it is not based on falsehoods" (2006:412). Devitt (2006: 187) also raises objections to eliminativism due to its consequences for communication. Devitt argues that the guesswork that it requires for successful communication to occur—the "happy accident" that Rey relies on for speakers to be able to correctly infer the intentional content of others—could not account for the complex forms of communication we observe.

Devitt also takes on the initial motivation for eliminativism more directly, arguing that the lack of easily *perceptible* syntactic properties does not mean that such properties are not instantiated by words (and other linguistic

entities). This is because many relational properties are hard to perceive, but standardly taken to exit nonetheless (2006:185). Linguistic utterances thus, according to Devitt, really do instantiate syntactic properties, and hence it really is the case that the entities we typically take to be words have the properties that are essential to them.

Rey (2008) provides responses to these criticisms (and others) that I do not have the space to outline here. However, even if those responses are persuasive, it is still certainly the case that eliminativism about words requires a radical shift from our intuitive understanding of the nature of words. The question then is about how far we should be motivated by such intuitions, particularly if those common-sense intuitions can be shown to be in tension with empirical theorizing.

5 | SITUATING WORDS IN THE METAPHYSICS OF LANGUAGE

There is much more that could be said about the ontology of words, and it is still a field in its relative infancy. Words have been studied by philosophers, across a range of topics, but devoted explicit work on words has been, to borrow a phrase from Alward, more of "a trickle than a torrent" (2005:172). Here, I have focused on certain core ontological issues that have been discussed in the literature to date, especially the debate between the realist and nominalist about word-types. There remains, though, huge scope to develop alternative ontologies that may prove fruitful to our conception of words. For example, some have begun to explore the idea of word tokens as being constituted by, but distinct from, the matter that composes them. These views, drawing inspiration from well-known theories in the metaphysics of ordinary objects and debates about the statue and the lump, might open up new ways for accounting for various linguistic phenomena, and could bring work on the ontology of words more into line with developments in the wider field of social ontology.[17]

There are also wider metaphysical questions about words. For example, questions about persistence and change of *token* words, and there is a need to connect work on word-kinds with the wider literature on the metaphysics of kinds. Can a token of one type *become* a token of another type? Some scenarios suggest they can.[18] If we accept the existence of word-kinds, then how should we understand the nature of those kinds? Are they natural kinds? Are words, as has often been suggested, like species? If so, what this means for our ontology of words will depend on various additional commitments we have about the metaphysics of kinds.[19] These are merely indicative questions, and certainly not exhaustive of the range of metaphysical issues concerning words. Words have been understudied in the philosophical literature, at least from a metaphysical approach, and there is a lot of room for new developments on a range of topics.

There are also important questions about what a commitment to a particular ontology of words might mean for our other commitments in other philosophical domains. For example, one aspect that I have not touched upon, but certainly deserves research focus in the future, is the relationship between these ontologies and existing topics and theories in the philosophy of language. It would be extremely strange if our ontology of words did not have consequences for our broader philosophy of language and traditional issues therein. These connections have so far been very underexplored.[20]

Looking at a bigger picture, the ontology of words should, in my view, be just one part of a broader metaphysics of language, as the investigation into a wide variety of questions arising from the nature of linguistic entities, be they linguistic objects like words, sentences, phrases etc., but also linguistic properties (such as grammatical properties). There are metaphysical questions about phrases, sentences, morphemes, phonemes, grammatical relations, and languages. All of these require their own specific ontological treatment, and any putative ontology of words should be minimally coherent with ontologies of these other linguistic entities.[21]

As touched upon above in passing, there also remains the central issue of how far an ontology of words (and metaphysics of language) should be align with our linguistic theorizing. I suggested in this paper that there should be minimal coherence with empirical theorizing, but this leaves upon the question of coherence with which theories? Linguists, naturally, disagree about many aspects of language relevant to the ontology of words, and hence any

ontologist working on a theory about the nature of words may (implicitly or explicitly) make assumptions that cohere with some theories but conflict with others. It is beyond the scope of this paper to talk extensively about the relationship between philosophical work on words and linguistic theories that concern words, but the need for work on this connection is clear. Those working on the ontology of words (and the metaphysics of language more broadly) need to have some grasp on developments in the relevant areas of linguistics, and, going the other way, work in the ontology of words may uncover implicit metaphysical assumptions within linguistic theorizing. Personally, I am sceptical about attempts to read our ontology off of our linguistic theory, and we need to recognize that the aims of linguists are (at least often) different from those of ontologists. But, the ontology of words as a topic calls out for interdisciplinary connections and research.

To conclude, the ontology of words gives rise to many questions that need be answered within the broader enterprise of the metaphysics of language, with connections to existing research in various philosophical domains including (at least) social and political philosophy, philosophy of mind, and philosophy of science. The interdisciplinary potential is also clear to see. Language is studied, in various ways and to various ends, in a wide range of sciences, and there are unanswered questions concerning both how that work intersects with philosophical work on words and other linguistic entities, and about possible philosophical assumptions that lie within those endeavors. The correct ontology of words will ultimately be just one piece of this wider metaphysics of language.

ACKNOWLEDGEMENTS

I would like to thank an anonymous reviewer at *Philosophy Compass*, and Keith Begley for their very helpful comments on an earlier version of this paper. I would also like to thank the organizers and participants of the conference "The Metaphysics of Words" in Genoa in June 2019 for numerous discussions that helped clarify various nuances of positions within this debate.

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ENDNOTES

[1]It is also the case that not all intentionally created patterns are words. It is more disputed whether there can be non-intentionally created words; see Munroe (2016) for a discussion of this in the context of theories in psycholinguistics. Accepting creation as stated is intended to require no commitment about what intentional acts or agency are, and what creatures are capable of such actions or possess agency.

[2]See Mason (2016) for an overview of the debate about the metaphysics of social kinds.

[3]I leave aside the difference between linguistic and non-linguistic communication as, prima facie, while non-linguistic communication may be complex, it does not involve *words*.

[4]The suggestion is that we can iteratively add suffixes and/or prefixes, *and* that the addition of each new suffix or prefix involves the creation of a new word. At some point these newly created words would be inexpressible - some could be infinitely long. The new words may not be accepted by ordinary language speakers, in part due to the cognitive difficulty of parsing them. However, this inability seems likely to be an issue of the working memory of humans, and may not be a good guide to the *existence* of these words.

[5]Due to space restraints, the precise details about how each theory is meant to be coherent with the empirical data cannot be discussed in this paper. For the most direct discussion of this, see Wetzel (2009) on Platonism and linguistics, Miller (2019c) on nominalist views and linguistics, and Nefdt (2019a) on structuralist accounts of words and linguistics.

[6]A relatively underdiscussed point in the literature is what mental tokens of words are in the sense of what sort or type of mental state we should take such words to be, or whether they are a distinct sort of mental state from those discussed elsewhere in the philosophical literature. This is an open question for both realist and nominalist ontologies, as supporters of both views are generally happy to posit token words as being either physical or mental.

[7]See Wetzel (2009: chap. 1) for an extended discussion of a range of data that the Platonist argues warrants the positing of types.

[8]See Wetzel (2009: chap. 2) for a response to this concern that leans heavily on responses developed in the context of Platonism in the philosophy of mathematics

[9]Of course, this requires a major shift in how we have typically thought about abstract entities. For more on this, see Irmak (2020).

[10]Note that Kaplan argues for this view as an alternative to what he calls "type-token models," which is a form of Platonism that appeals to spelling and/or pronunciation as the criterion of word identity. The terminology is also tricky here. Kaplan dislikes the using the term "type," but only due to its prior association with other ontological views. In this exposition, I am using the term "type" more neutrally, and hence we can equate types with Kaplan's "continuants," and tokens with his "stages."

[11]Similar views on the importance of history or origin on the individuation of word-types can be found in Irmak (2019), Millikan (1984: 74–75), and Sainsbury & Tye (2012: 4). See Miller (2019a) for an argument against taking historical properties as the correct criterion of individuation for words.

[12]Though Kaplan does hold that there are untokened sentence-types (and other linguistic types), holding that those types are abstract entities (2011:511).

[13]Though see Alward (2005) for a response to Cappelen's concerns, but also further problems for Kaplan's ontology relating to the role of words in communication.

[14]See in particular, amongst their other work, Goodman and Quine (1947), and Quine (1960, 1987).

[15]Again, this is a claim about the ontological status of token words, not types. The view is neutral about the existence of types; see Rey (2006, 2008: 181).

[16]See Nefdt (2019b) and Stainton (2014) for in depth discussion of the subject matter of linguistics specifically; here I focus only on how it contributes to the motivation for certain views about the ontological status of words. It is, though, worth noting that many writing in the nominalist-realist debate more recently have normally tried to stay neutral with respect to a related debate about the subject matter of linguistics.

[17]For discussion of these views concerning words and other social entities, see Epstein (2009, 2015) and Evnine (2016).

[18]For example, imagine a sentence written on a blackboard, reading "A bank is a financial institution." Now someone erases all of the tokens, except the token "bank," and then inscribes new tokens such that the sentence on the board now reads "The bank was home to many small creatures." Intuitively, the token "bank" in the second sentence is of a different type than the token "bank" in the first, and difference in type indicates a difference in identity. However, prima facie the only changes to the token in this scenario are extrinsic, and changes in extrinsic properties are standardly taken to be insufficient for genuine change.

[19]See Wetzel (2009) for a defense of the view that words are like species. See Miller (n.d.) for a wider discussion of the nature of word-kinds in the context of recent work on the metaphysics of kinds.

[20]For an example of this kind of work, see Miller (2019b) on the ontology of words and theories of quotation.

[21]See Nefdt (2019a) and Jackendoff (2018) for work that comments on this connection to the ontology of other sorts of linguistic entities. See also Santana (2016) for a good overview and discussion of the ontology of language debate more broadly.

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How to cite this article: Miller JTM The ontology of words: Realism, nominalism, and eliminativism. *Philosophy Compass*. 2020;15:e12691. https://doi.org/10.1111/phc3.12691